Application No. Not Yet Assigned Paper Dated: September 7, 2006 In Reply to USPTO Correspondence of N/A Attorney Docket No. 3274-060290

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claim 1 (currently amended): A fluorescent molecular wire comprising a fluorescent-polymer main chain having a linked conjugated system to which an optically active substituent is linked so as to be conjugatable form, the optically active substituent being represented by the following formula (I):

where R¹ represents a hydrogen atom or an alkyl group having 1 to 10 carbon atoms; R², R³, R⁴, R⁵, R⁶, R⁷, R⁸, and R⁹ represent independently a hydrogen atom, a linear alkyl group having 1 to 30 carbon atoms that may have a substituent, a branched alkyl group having 2 to 30 carbon atoms that may have a substituent, a cyclic alkyl group having 3 to 30 carbon atoms that may have a substituent, or an aralkyl group having 7 to 30 carbon atoms that may have a substituent, and R³ and R⁷ may be bonded respectively to R⁴ and R⁸ to form an alkylene group having 2 to 60 carbon atoms that may have a substituent; and R¹⁰ and R¹¹ represent independently a hydrogen atom or an alkyl group having 1 to 15 carbon atoms that may have a heteroatom, and R¹⁰ and R¹¹ may be bonded to form an alkylene group having 2 to 30 carbon atoms that may have a heteroatom.

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Claim 2 (currently amended): The fluorescent molecular wire of claim 1, wherein the polymer main chain <u>having a linked conjugated system</u> is a polyarylene structure, a poly(arylene ethynylene) structure, or a poly(arylene vinylene) structure, a poly(phenylene structure, a poly(phenylene ethynylene) structure, a poly(phenylene ethynylene) structure, a poly(phenylene ethynylene) structure, or a poly(phenylene vinylene) structure.

Claim 3 (new): The fluorescent molecular wire of claim 1, wherein the polymer main chain having a linked conjugated system is a polyphenylene structure, a poly(phenylene thiophenylene) structure, a poly(phenylene ethynylene) structure, a poly(phenylene ethynylene) structure, a poly(phenylene ethynylene) structure, or a poly(phenylene vinylene) structure.

Claim 34 (currently amended): The fluorescent molecular wire of elaim any one of claims 1 or 2 to 3, wherein the optically active substituent is coupled to the polymer main chain having a linked conjugated system via mono- or poly-arylene, mono- or poly-livlene, mono- or poly-vinylene, or a combination thereof.

Claim 45 (currently amended): The fluorescent molecular wire of any one of claims 1 to 34, wherein the optically active substituent is represented by the following formula (II):

$$R^5$$
 R^4
 R^3
 R^2
 OR^1
 OR^6
 R^8
 R^7
 R^6
(II)

where R¹ represents a hydrogen atom or an alkyl group having 1 to 10 carbon atoms; and R², R³, R⁴, R⁵, R⁶, R⁷, R⁸, and R⁹ represent independently a hydrogen atom, a linear alkyl group having 1 to 30 carbon atoms that may have a substituent, a branched alkyl group having 2 to 30 carbon {wo297661.1}

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atoms that may have a substituent, a cyclic alkyl group having 3 to 30 carbon atoms that may have a substituent, an aryl group having 6 to 30 carbon atoms that may have a substituent, or an aralkyl group having 7 to 30 carbon atoms that may have a substituent, and R^3 and R^7 may be bonded respectively to R^4 and R^8 to form an alkylene group having 2 to 60 carbon atoms that may have a substituent.

Claim 56 (currently amended): The fluorescent molecular wire of claim 45, which is represented by the following formula (III):

where R¹² and R¹³ represent independently a hydrogen atom, an alkyl group have 1 to 20 carbon atoms, an alkoxy group having 1 to 20 carbon atoms, a di- or mono-alkylamide group having 1 to 20 carbon atoms, or an alkyl ester group having 1 to 20 carbon atoms; and n is an integer of 5 or more.

Claim 67 (currently amended): A chiral sensor comprising the fluorescent molecular wire of any one of claims 1 to 56.